

from about 1 to slightly more than 2 mi. wide; the other extending east-west across the natural area in a strip which coincides with the Whipping Creek drainage. Presumably this latter area of deep peat occupies a small trough or valley in the surface of the pre-peat landscape. Much smaller portions of the natural area are mapped as the Belhaven, Kilkenney and Ponzer series, which are shallow Histosols, and the Roper series, a mineral soil with a histic epipedon (organic surface layer).

VEGETATION

The predominant vegetation type along much of the Alligator River shoreline in Dare County is the swamp forest which lends its name to the Alligator River natural area and retains its best development here. In these swamp forest stands no dominant canopy species is immediately evident, although relatively few characteristic species compose the swamp forest canopy. There are four principal species which form the canopy in a mixture of varying proportions. Swamp black gum or swamp gum (Nyssa sylvatica var. biflora) is the tree species exhibiting the most consistent density and distribution. Based on canopy dominance data taken in similar Hyde County stands which are considered extensions of the same swamp system, swamp black gum is the predicted dominant or co-dominant in many of the swamp forest stands of the Alligator River shoreline in Dare County. The physiognomy of the mature gum stands in Dare County is much different from that of swamp gum-dominated stands on brownwater river systems, due to the significant component of swamp and lowland conifers. Atlantic white cedar or juniper (Chamaecyparis thyoides) and loblolly pine (Pinus taeda) join swamp black gum in the canopy, and often can be considered as a co-dominant gymnosperm component of the community. The proportional make-up contributed by these two species is more variable than that provided by swamp gum. Atlantic white cedar particularly has been selectively cut in many parts of the natural area, with consequent variation in its importance from stand to stand; in other stands its dominance locally exceeds that of swamp gum. Throughout the natural area in mature swamp forest stands, Atlantic white cedar is a large and beautiful old-growth tree with a shaggy conical top and long clear trunk. These individuals range from 18-24 in.dbh with some even larger. Loblolly pine is much more scattered in all stands investigated, but often attains comparable diameters and usually exceeds cedar in height.

Emergent from the canopy at many sites within the natural area are scattered old-growth bald cypress (Taxodium distichum). This species where present usually appears to have been left as "wolf trees" during previous cutting cycles, and indeed the